REMARKS

I. INTRODUCTION

In response to the Office Action dated October 4, 2005, claims 1, 14, and 27 have been amended, and claims 8, 21, and 34 have been cancelled. Claims 1, 3-7, 9-14, 16-20, 22-27, 29-33, and 35-39 remain in the application. Re-examination and re-consideration of the application is requested.

II. REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation, the assignee of the present application.

III. RELATED APPEALS AND INTERFERENCES

On July 15, 2006, a Notice of Appeal and Pre-Appeal Brief Request for Review were filed in this case. In response, the Patent Office elected to reopen prosecution and issued the Office Action dated October 4, 2005, which this amendment is in reply to.

IV. STATUS OF CLAIMS

Claims 1, 3-7, 9-14, 16-20, 22-27, 29-33, and 35-39 remain pending.

Claims 2, 8, 15, 21, 28, and 34 have been cancelled.

Claims 1-7, 9, 12-20, 25-33, 35, and 39 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,812,125 to Borella et al in view of U.S. Patent Application No. 2004/0153792 to Merriam.

Claims 10-11, 23-24, 36-37 and 38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Borella in view of Merriam and further in view of U.S. Patent No. 6,212,564 to Harter et al.

Applicants request reconsideration of all of these rejections.

V. STATUS OF AMENDMENTS

Amendments to the claims have been made as indicated above.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 14, and 27 are generally directed to obtaining information across a network based on a speed of the network connection (wherein the size of the information decreases as the speed of the network decreases). To accommodate the different sizes of information to be obtained, the claims provide the ability to determine the speed of the network connection in a specific manner. In this regard, a calibrated object library on a server is used. The client transmits a request, across the network connection, to the calibrated object library on the server, for an object of a pre-known size and properties. Once requested, the requested object is obtained/transmitted back to the client across the network connection. The speed of the network is then based on a measurement of the round-trip response time calculated from the transmitting of the request for the object (i.e., from the client) to completion of obtaining the object from across the network connection (from the server).

In addition to the above, the claims have been amended to indicate that once the speed of the network connection has been determined, information is requested from a set of object libraries that maintain the information in various sizes. In this regard, as the speed of the network connection decreases, the size of the information requested from the object libraries decreases.

VI. GROUNDS OF REJECTION TO BE REVIEWED

Claims 1-9, 12-21, 25-35, and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,812,125 to Borella et al in view of U.S. Patent Application No. 2004/0153792 to Merriam.

Claims 10-11, 23-24, 36-37 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Borella in view of Merriam and further in view of U.S. Patent No. 6,212,564 to Harter et al.

Applicants request review of these rejections.

VII. ARGUMENTS

A. Independent Claims 1, 14, and 27 are Patentable Over the Cited Art

In paragraphs (3)-(4) of the Office Action, claims 1-7, 9, 12-20, 25-33, 35, and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Borella et al., U.S. Patent No. 6,182,125

(Borella) in view of Merriam, U.S. Publication No. 2004/0153792 (Merriam). In paragraph (5) of the Office Action, claims 10-11, 23-24, 36-37, and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Borella in view of Merriam as applied to claims 1, 14, and 27, and further in view of Harter et al., U.S. Patent No. 6,212,564 (Harter).

Specifically, the independent claims were rejected as follows:

> As per claims 1 and 27, Borella et al teaches a computer-implemented method for obtaining information across a network comprising: determining a speed of a network connection to which a computer is attached by (See col. 5, lines 8-18): 1) A client transmitting a request, across the network connection, to a calibrated object library on a server, for an object of pre-known size and properties (See Col. 4, lines 65-67 and col. 5, line; 2)) and obtaining information from across the network connection based on the speed of the network connection, wherein a size of the information to be obtained decreases as the speed of the network connection decreases (See col. 5, lines 62-67 and col. 6, lines 1-8). Furthermore, Borella et al fails to teach obtaining the object of the pre-known size and properties from across the network connection; and measuring a round-trip response time calculated form the transmitting of the request to completion of the obtaining of the object form across the network connection (See col. 5,lines 27-44, Network Latency is determined by sending a small portion the requested original electronic content to the user computer and using the time transmission of the one complete electronic HTML page and reception of the request can be used as a round-trip network latency estimate. However, Borella fails to teach calculating the round-trip delay without client based delays.
>
> Merriam teaches obtaining the object of the pre-known size and properties from across the network connection; and measuring a round-trip response time calculated form the transmitting of the request to completion of the obtaining of the object form across the network connection without delays (See page 4, paragraph 0040]).
>
> It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Merriam in the claimed invention of Borella et al in order to allow a technician to determine problems associated with the network (See page 4, paragraph [0040]).

> As per claim 14, Borella et al teaches a computer-implemented system for obtaining information across a computer network comprising: (a) a client (See col. 2,lines (10-11); (b) an adaptive agent executing on the client, wherein the adaptive agent is configured to: (i) determine a speed of a network connection to which a computer is attached; A client transmitting a request, across the network connection, to a calibrated object library on a server, for an object of pre-known size and properties; 2) obtaining the object of the pre-known size and properties from across the network connection ; and measuring a round-trip response time calculated form the transmitting of the request to completion of the obtaining of the object form across the network connection See col. 5,lines 27-44, Network Latency is determined by sending a small portion the requested original electronic content to the user computer and using the time transmission of the one complete electronic HTML page and reception of the request can be used as a round-trip network latency estimate); and (ii) obtain information from across the network connection based on the speed of the network connection, wherein a size of the information to be obtained decreases as the speed of the network connection decreases (See col. 5, lines 62-67 and col. 6, lines 1-8). However, Borella fails to teach calculating the round-trip delay without client based delays.
>
> Merrian teaches obtaining the object of the pre-known size and properties from across the network connection; and measuring a round-trip response time calculated form the transmitting of the request to completion of the obtaining of the object form across the network connection without delays (See page 4, paragraph 0040]).

> It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Merriam in the claimed invention of Borella et al in order to allow a technician to determine problems associated with the network (See page 4, paragraph [0040]).

Applicant traverses the above rejections for one or more of the following reasons:

(1) None of the cited references teach, disclose, or suggest a one or more object libraries that maintain information in various sizes; and

(2) None of the cited references teach, disclose, or suggest, that information is obtained from such object libraries based on a speed of a network connection;

Independent claims 1, 14, and 27 are generally directed to obtaining information across a network based on a speed of the network connection (wherein the size of the information decreases as the speed of the network decreases). To accommodate the different sizes of information to be obtained, the claims provide the ability to determine the speed of the network connection in a specific manner. In this regard, a calibrated object library on a server is used. The client transmits a request, across the network connection, to the calibrated object library on the server, for an object of a pre-known size and properties. Once requested, the requested object is obtained/transmitted back to the client across the network connection. The speed of the network is then based on a measurement of the round-trip response time calculated from the transmitting of the request for the object (i.e., from the client) to completion of obtaining the object from across the network connection (from the server).

In addition, the claims have been amended to indicate that once the speed of the network connection has been determined, information is requested from a set of object libraries that maintain the information in various sizes. In this regard, as the speed of the network connection decreases, the size of the information requested from the object library decreases. Such limitations were originally set forth in dependent claims 8, 21, and 34 that have now been cancelled.

An explicitly claimed element is that the client transmits a request for an object of a pre-known size and properties to a calibrated object library that is located on a server. The Office Action alleges the Borella teaches such a claim limitation relying on col. 4, lines 65-67 and col. 5, line 2. Borella col. 4, line 65-col. 5, line 7 provides:

> In one preferred embodiment of the present invention, the network latency is determined by transmitting a small number of Internet Control Message Protocol ("ICMP") "ping" packets to the user computer. As is known in the art, ICMP is used for network management. The main functions of ICMP include error reporting, reachability testing (e.g., "pinging") congestion control, route-change

> notification, performance, subnet addressing and other maintenance. For more information on ICMP see RFC-792, incorporated herein by reference.

Applicants note that such a teaching is not even remotely similar to that claimed. As set forth in the prior response to the first Office Action, ICMP packets are internet control message protocol ping packets that are sent to a user's computer and are returned with a timestamp that can be used to determine round-trip latency (see col. 4, line 65-col. 5, line 18). Thus, unlike the present claims where a request for a particular object is sent and the object is received, Borella merely sends a packet to a computer and back and based on a timestamp determines the network latency. Such a teaching is not even remotely similar to the network speed determination set forth in the present claims. Accordingly, Borella fails to teach, disclose, or suggest, implicitly or explicitly, multiple aspects of the present invention.

Thus, as known in the art, Borella provides for the use of a ping command wherein a packet is sent by the client to the server and then merely returned with a timestamp. Such a ping command is not a request for an object of a particular size as explicitly and expressly claimed. . Accordingly, such a description in Borella does not and cannot teach the presently claimed invention.

In response to arguments similar to those set forth above, the pending Office Action provides that the Applicant's description defines a calibrated object library as an arbitrary name for a server that stores adaptable object/information depending on the network latency. Applicants submit that such a definition is within the scope of the definition fully set forth in paragraph [0038] of the application.

However, based on the above, the pending Office Action then asserts:

> Borella clearly teaches "after a network latency is determined, the web server determines an amount of original message. However, Borella teaches "web server determines an amount of original electronic content to be send to the user computer using predetermined cut-off latencies. The pre-determined cut-off latencies allow different amounts (e.g., different version) of the original content to be sent to the user computer. (See col. 6, lines 1-5). It is inherent that If Borella teaches sending a different version of the original content based on the network latency, that Borella teaches a "calibrated object library on a server" that stores adaptable object/information.

Applicants respectfully traverse the above assertions. Applicants submit that rather than attempting to read Borella's teaching onto the specification of the present invention, to establish a prima facie case of obviousness, the Patent Office must demonstrate where Borella teaches the elements set forth in the claims. In this regard, the claims first provide for a client requesting an object of a pre-known size and properties from a calibrated object library on a server. Rather than

teaching such an element, the Office Action asserts that Borella determines an amount of original content to send using pre-determined cut-off latencies. Again, the claims provide that the particular object of a pre-known size and properties is specifically requested by the client. Thus, rather than merely sending something other than the object that is requested, the claims actually send the object that is requested by the client. Borella does not teach or describe such a claim limitation. As set forth in the Office Action itself, Borella sends a different version to the client. Such a different version is directly contrary to that set forth in the claims. Accordingly, rather than actually teach the present invention, the Office Action has admitted that Borella teaches the opposite of that claimed. Accordingly, Borella in fact teaches away from the presently claimed invention.

To further demonstrate the teaching away aspects of Borella, Applicants direct the attention of the Examiner to col. 5, lines 27-44 of Borella that provides:

> In another preferred embodiment of the present invention, network latency is determined at Step 24 by sending a small portion of the requested original electronic content 14 to the user computer. The web server records a time at which it sends a small portion of the requested original electronic content 14 such as one complete HTML page. The network browser on the user computer requests other original electronic content such as graphical images after the network browser parses Uniform Resource Locators ("URLs") in the HTML page. The time between transmission of the one complete HTML page and reception of the request for the first original electronic content such as graphical images can be used as a round-trip network latency estimate. Using this method to determine network latency at Step 24 does not allow a network latency estimate to be determined for a first HTML page sent. Instead this method provides a network latency estimate that can be used to determine an amount of original electronic content at Step 26 to send to the user computer in the future.

This text expressly differs from that recited in the claims. As can be seen, the client requests a web page. In response, the web server does not send what the client requested. Instead, the web server sends "a small portion of the requested original electronic content". In other words, instead of the client requested an object of a pre-known size and properties, Borella's client requests content and the server elects to send something different. In this regard, Borella's server does not send an object of a pre-known size and properties but merely sends a portion of requested original content. The text provides that an example of such content is one complete HTML page. The client then processes/parses the HTML page for various URLs. The client then requests such URLs from the server.

Based merely on the small portion of content sent and the subsequent request for further content by the client to the server, Borella's server calculates the network latency. In this regard,

Borella provides that the network latency is measured on the server side and consists of the "time between transmission of the one complete HTML page and reception of the request for the first original electronic content".

As can be seen by the above cited text and summary, Borella does not even remotely describe the claimed process or elements. Specifically, instead of teaching the claimed client transmitting a request for an object of a pre-known size and properties from a calibrated object library, Borella's client merely requests web content. Further, instead of teaching the client obtaining the object of the pre-known size and properties from across the network connection, Borella teaches the server merely sending a small portion of the web content actually requested to the client. In other words, Borella does not send the web object requested but sends content different from that requested.

In response to the above arguments, the Office Action asserts (on page 3 of the Office Action):

> However, it is well known in the art that when a client is transmitting a request, the connection is established by the client by sending ICMP packets in order to find and locate the server (ex. DNS). Furthermore, Borella clearly teaches wherein the network latency is determined by transmitting a small number of ICMP packet ping packets to the user computer (See col. 4, lines 65-67 and col. 5, line 1).

Applicants respectfully traverse such an assertion. Again, as set forth in the claims, the speed that is measured is from the transmission of a request (for a specific object of a pre-known size and properties) to completion of obtaining the specific object from the server. The Office Action is asserting that such a teaching is equivalent to using an ICMP packet. Applicants respectfully disagree. Again, in ICMP, a ping packet is sent to the server and merely returned with a time stamp. Such a teaching is not equivalent to requesting an object of a certain size and properties and then receiving the requested object in return. There is not even a remote similarity between the two teachings. The Office Action is attempting to group all of the first steps into a "network latency determination" while ignoring the individual steps that are used in computing such a determination. Such an evaluation is wholly without merit. The claims set forth a specific method for determining a network latency involving the requesting and return of a particular object. Transmitting ping packets are not even remotely similar to such a teaching.

In addition to the above, Applicants submit that instead of the client calculating a round-trip response time from the client request to the server and the receipt of the object back at the client, Borella teaches a server based network latency as the time from when content (and not an object) is sent to the client followed by receipt of a subsequent request from the client (wherein the request is found by the client when the client parses the small portion of content sent by the server).

Applicant notes that as part of Borella's measuring of network latency on the server side, Borella's network latency contains timing for client based delays. In this regard, Borella's network latency includes the time it takes for the client to process and parse the content (sent by the server) and to request subsequent content. Such timing cannot be compared to the lack of client based delay as claimed that merely includes the request for a specific object (by the client to the server) and the return of the object (to the client from the server) without any client based processing of the object or parsing to determine which further content to request or send.

The Office Action then asserts that the claims do not specify that client based delays are not included in the calculation of the round-trip response time. Such an assertion is without merit. Firstly, the round trip response time is calculated "from the transmitting of the request to completion of the obtaining of the object from across the network connection". The claims expressly set forth that the client transmits the request to the server. Thus, while the claims do not explicitly state "client based delays are not included", there is no place for such client based delays to be included within the claim language. Instead the claims provide that the time begins from the transmitting of a request for the specific object to the server and ends when the object is received by the client.

The Action asserts :that Borella col. 5, lines 27-44 teaches that round-trip response time measurement:

> ...Network latency is determined by sending a small portion the requested original electronic content to the user computer and using the time transmission of the one complete electronic HTML page and reception of the request can be used as a round-trip network latency estimate.

Again, as cited above, col. 5, lines 27-44 provide:

> In another preferred embodiment of the present invention, network latency is determined at Step 24 by sending a small portion of the requested original electronic content 14 to the user computer. The web server records a time at which it sends a small portion of the requested original electronic content 14 such as one complete HTML page. The network browser on the user computer requests other original electronic content such as graphical images after the network browser parses Uniform Resource Locators ("URLs") in the HTML page. The time between transmission of the one

complete HTML page and reception of the request for the first original electronic content such as graphical images can be used as a round-trip network latency estimate. Using this method to determine network latency at Step 24 does not allow a network latency estimate to be determined for a first HTML page sent. Instead this method provides a network latency estimate that can be used to determine an amount of original electronic content at Step 26 to send to the user computer in the future.

As described in Borella, the time starts when the SERVER sends the small portion to the CLIENT and stops when the SERVER receives a request for an image identified in the HTML page from the CLIENT. Such a teaching is not even remotely similar to that set forth in the claims. In this regard, the Office Action is misinterpreting Borella's teaching. Rather than teaching the measurement of time from a client requesting an object from a server and the server sending the object back, Borella teaches a server sending a web page and the client requesting an image in the web page from the server. Thus, while the presently claimed invention teaches a time from a request from client-to server-to client, Borella teaches a time from server-to client-to server.

Thus, Borella explicitly must include client based delays since the client must process the server HTML page in order to send the request for the image. Such a delay does not exist in the present claims at all. In this regard, the time begins when the request is transmitted to the server and ends when the object is received from the server. No client actions or performance are included in such a calculation. Further, such a lack of client actions are explicitly set forth in the definition of the round-trip measurement set forth in the claims.

In addition to the above, the Office Action admits that Borella fails to teach the round-trip delay without client based delays. Instead, the Office Action relies on Merriam to teach this element. Applicants submit that Merriam fails to cure the deficiencies of Borella.

As indicated above, Applicants further note that the claims provide that based on the speed of the network connection, as determined above, the size of information to be obtained across the network decreases. Further, the claims have been amended to indicate that the information is obtained from one or more object libraries that maintain the information in various sizes. The cited references fail to teach these aspects of the claims.

In rejecting original claims 8, 21, and 34, the Office Action admits that Borella fails to teach the claimed limitations and instead relies on Merriam paragraph [0038]. Applicants note that paragraph [0038] provides for various objects stored on a server that are used to determine network delay times. Such a collection of objects used explicitly for a specific purpose are significantly

different from that of the present invention wherein the objects in the libraries are merely requested based on a network connection speed that has already been determined as described above. In other words, the information requested from the object libraries as claimed is based on the speed of the network connection and the size of such information that is obtained decreases as the speed of the network connection decreases. Such a use of object libraries is not even remotely similar to storing 3 objects 20a, b, and c in Merriam that are merely used to determine a network delay time and are not used, transmitted, or obtained based on a network delay time. In this regard, the object 20a, b, or c obtained by the client in Merriam does not change depending on the network transmission/delay time. Instead, the objects 20a, b, and c are used to determine the network delay time (see paragraph [0038]). Again, using objects to determine a network delay time (as in Merriam) is not equivalent to nor does it teach using/transmitting objects from a library based on a network delay time (as claimed).

In view of the above, Applicants submit that neither Borella nor Merriam even remotely describe the maintenance of object libraries on a server. Further, neither Borella nor Mirriam even remotely allude to the transmission of any object in such a library depending on the speed of a network connection.

In addition, the other cited references also fail to cure Borella's and Merriam's deficiencies.

Moreover, the various elements of Applicant's claimed invention together provide operational advantages over Borella, Merriam, and Harter. In addition, Applicant's invention solves problems not recognized by Borella, Merriam, and Harter.

Thus, Applicant submits that independent claims 1, 14, and 27 are allowable over Borella, Merriam, and Harter. Further, dependent claims 3-7, 9-13, 16-20, 22-26, 29-33, and 35-39 are submitted to be allowable over Borella, Merriam, and Harter in the same manner, because they are dependent on independent claims 1, 14, and 27 respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 3-7, 9-13, 16-20, 22-26, 29-33, and 35-39 recite additional novel elements not shown by Borella, Merriam, and Harter.

VIII. CONCLUSION

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

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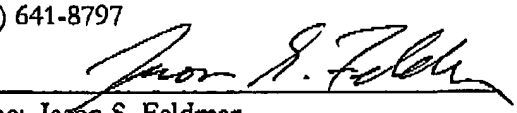
By: 
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